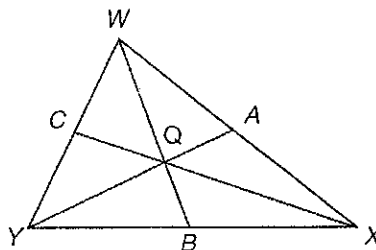


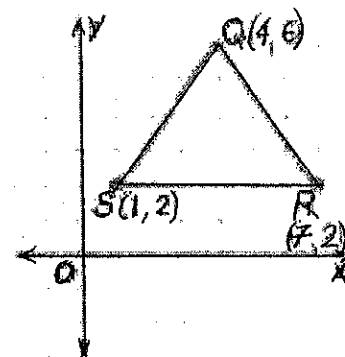
C 5 Extra WS
Geometry 201

Name _____

1. In $\triangle WXY$, Q is the centroid and $YQ = 2x - 15$ and $QA = 4$. Find x .



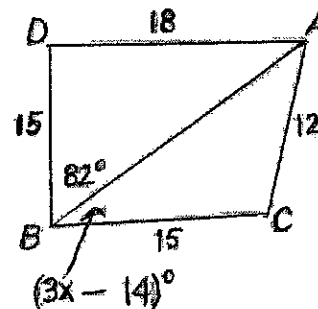
2. The vertices of $\triangle QRS$ are $Q(4, 6)$, $R(7, 2)$, and $S(1, 2)$. Find the coordinates of the orthocenter of $\triangle QRS$.



3. Is it possible to form a triangle with the given side lengths? If not, explain why not.

- 3 in., 6 in., 8 in.
- 7 m, 9 m, 18 m

4. Find the range of possible values for x .



5. Write an indirect proof to show that if $3x + 6 < 15$ then $x < 3$.

Given: $3x + 6 < 15$

Prove: $x < 3$

6. Write an indirect proof to show that if x an odd integer, then x^2 is an odd integer.

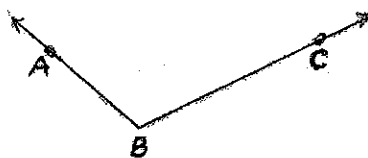
Given: x is an odd integer.

Prove: x^2 is an odd integer.

7. Write an indirect proof to show that if $\angle ABC$ is not a right angle then $m\angle ABC \neq 90$.

Given: $\angle ABC$ is not a right angle.

Prove: $m\angle ABC \neq 90$



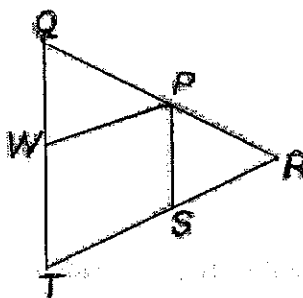
8. Write a 2 column proof.

Given: P is the midpoint of \overline{QR}

$m\angle WPQ > m\angle SPR$

$\overline{TW} \cong \overline{TS}$, $\overline{WP} \cong \overline{SP}$

Prove: $TQ > TR$



9. Write a 2 column proof.

Given: $\overline{PN} \parallel \overline{JK}$

$PN > JK$

$\overline{PJ} \cong \overline{NK}$

Prove: $m\angle JKN > m\angle NPJ$

